Attention has been called to the difficulty of finding the artery when the usual landmarks are lost. Not much difficulty was experienced in the present case, chiefly because of the free incision down to it, although the author thinks that the difficulty of the procedure has been exaggerated. Amputation should be entirely abandoned as a routine treatment for hæmorrhage in compound fracture, only being justified by some additional special circumstance, such as failure to secure the bleeding vessel or extensive septic infection of the tissues of the limb. He formulates his views on the subject as follows:

(1) In primary hæmorrhage the bleeding vessel should be sought for in the wound and, if possible, both ends ligatured. For this purpose the wound may require to be considerably enlarged. If, after a free exposure of the wound and a careful search, the bleeding vessel cannot be found, amputation is necessary.

(2) In non-septic secondary hæmorrhage the same rule should be followed.

(3) In secondary hæmorrhage from septic arteritis, if the suppuration is limited in area the bleeding vessel should be sought in the wound, and a ligature placed on it some little distance above and below the aperture in it, and the most careful means employed to make and keep the part aseptic. Should the hæmorrhage recur the main artery may be ligatured. Should this fail to arrest the bleeding, or should the septic suppuration in the first place be very extensive, amputation above the seat of fracture is indicated.—*London Lancet*, March 4, 1893.

JAMES E. PILCHER (U. S. Army).

GENITO-URINARY ORGANS.

I. Cases of Nephrectomy, with Remarks. By Dr. M. H. RICHARDSON (Boston). The author reports four successful nephrectomies, two for tuberculosis, one for adenoma and one for hydronephrosis, caused by an impacted calculus in the ureter.

In approaching the kidney, the author selected in all an anterior incision in the linea semilunaris. He was influenced to select this route on account of the easy and complete exposure of the kidney which it gives, and the opportunities for the complete and ready control of hæmorrhage which it offers; it, moreover, enables the operator to ascertain the state of the other kidney, or of other organs. He considers removal of a kidney by the lumbar path to be a very difficult and dangerous procedure, involving hazard from hæmorrhage alone exceeding the immediate and remote dangers of the whole operation by the anterior route. He calls attention to the dangers of tearing the renal vein, the difficulty in tying the pedicle, and the frequency of multiple branches from the abdominal aorta going to the kidney.

By the anterior incision the peritoneal cavity is at once opened. On the right side appears the ascending colon, which may be easily turned one side, and come down directly upon the kidney. On the left side the descending colon passes in front, and at times its mesentery is spread over the anterior surface of the tumor. Separation is very easy, however, and may be accomplished without danger to the large vessels of the meso-colon, especially if the kidney is not much enlarged. By first separating the attachments of the colon on either side at the outer edge, and pushing the whole toward the median line, all danger of injury both to the bowel and its vessels may be avoided. By this route the kidney may easily be isolated and its attachments secured, the important structures meantime being easily accessible in a well-lighted field.

On separating the kidney, the pedicle should be tied in sections with the greatest care, not using too large silk. Having tied the pedicle in sections with small silk, and being sure that each ligature is firm, it is a good plan to apply a ligature of larger silk around the whole, fastening it with the greatest care. In this manner the danger of hæmorrhage is very slight. In the tubercular cases he used gauze packing, and where there was much oozing the gauze drain.

In one case he sewed the ureter in the wound. In all the other cases he tied, cauterized and left it. All the cases did equally well, and there seems to have been no difference in the result by any of these methods. In tuberculous and inflammatory cases he advises packing the whole cavity with dry sterile or iodoform gauze. He prefers, in closing the wound, to use silver-wire sutures in this as in all parts of the body. In almost all cases there is no suppuration whatever. Sterilization is much more easy and perfect than in the use of silk.—*Boston Medical and Surgical Journal*, April 13, 1893.

II. A Case of Total Ablation of an Ureter for Persistent Purulent Inflammation of the same, remaining after Nephrectomy for Pyonephrosis. By Dr. PAUL REYNIER (Paris). The reporter records the case of a man, of twenty years, whose right kidney, which had become converted into a large pus sac, he enucleated through a lumbar incision in April, 1892. The much dilated ureter, of the calibre of the small intestine, was at this time also dissected out for some distance, and after having been ligated the separated part was cut away. The lumbar wound healed promptly, but the urine persisted in remaining purulent, and when the ligature that had been thrown around the ureter came away a pus-discharging fistula remained. Two months later the lumbar wound was reopened and enlarged, the stump of the ureter identified and liberated from its cicatricial adhesions, and by a finger following it down and enucleating it, some 15 centimetres had already been drawn out when the tube tore across and the stump retreated deep into the pelvis, the part that was removed being more than 12 centimetres long. After this the same condition as before again developed. Ten days later an attempt was made to reach the lower end of the ureter through the perinæum by an incision running from the median line back to the level of the coccyx. The side of the rectum and the prostate were readily exposed, the vesiculæ seminales and the bas fond of the bladder were identified, but it was impossible for him to discover or to feel the ureter, notwithstanding prolonged and minute search. Four months later the condition of the patient remained unchanged, and he suffered much from pain and tenderness in the right flank. Reynier now essayed again to reach the lower end of the pus-secreting ureter through an incision in the inguinal region. The bladder was first distended with boric acid solution, and raised up by a ball in the rectum; by incision the inguinal canal was now opened up, and the peritonæum was stripped up as if for the ligature of the iliac artery, as far as the point where the vas deferens crosses the iliac vessels. His search for it here was at first in vain, but at last he found it concealed by the retractor which held back the peritonæum, with which it had been lifted up. It was easy then to isolate what remained of the ureter throughout its whole extent, which was now about 12 centimetres. Its upper part, where torn at the previous operation, was closed; its cavity, still like that of an intestine, contained pus, which could be pressed on into the bladder; as it approached the bladder it regained its normal dimensions. It was easy to isolate the ureter from the fatty tissue by which it was surrounded down to the point of its entry into the bladder, and here to ligate it and cut it off. The ligature thread was brought out through the incision in the groin, a drain put in place, and the inguinal wound was closed as in operations for hernia. The aftercourse of the operation was very simple. From the day but one thereafter no pus appeared in the urine; after a few days, with the help of a few capsules of oil of sandalwood, the urine became perfectly clear; as soon as the ligature came away the groin wound promptly closed, the local pains disappeared, the patient regained his health and was able to resume his trade.

The reporter believes this to be the first instance in which such ureterectomy has been done, but thinks that the occasions for its practice will not be infrequent. He is of opinion that those authors who have stated that after nephrectomy any lesions of the ureter may be expected to spontaneously disappear, will often be found to be in error, and that, on the contrary, in many cases interminable fistulæ persist, which call for later removal of the ureter in order to bring about final cure.

For such ureterectomy he advises the last method of operating adopted in his case. The incision of inguinal canal and the stripping up of the peritonæum as far as the iliac vessels opens a path wide enough to allow of the isolation of the ureter as far as the bladder. By taking the vas deferens as a guide, the operator readily directs himself and reaches the ureter in its pelvic portion either at the point where the ureter crosses it, or a little above this point where the vas deferens crosses the vessels. One may also be helped by remembering that the ureter may be found at the intersection of a line drawn transversely between the two anterior superior iliac spines and one drawn vertically through the spine of the pubis.—*Bull. et Mém de la Soc. de Chir. de Paris*, March, 1893, p. 102.

III. Suprapubic Prostatectomy. By G. BUCKSTON BROWNE, F.R.C.S. (London). In a paper read before the Medical Society of London, the author remarks that in prostatic obstruction the intra-vesical enlargement is the chief cause of difficulty in micturition. The intra-vesical growth is often like an egg, projecting into the bladder, with the vesical urethral orifice at the apex of the egg. This ovoid projection may be deficient at any part of the urethral circumference. When wanting anteriorly and laterally, there is the so-called middle lobe enlargement, in which from behind the urethral orifice there is a projecting prostatic mass acting like a bullet-valve, and often causing the bladder to be entirely dependent upon catheterism for evacuation of urine. More rarely the ovoid projection is wanting only in front or only on one side, in which cases it is nearly always with a posterior enlargement. Intra-vesical prostatic outgrowths may be associated with considerable extra-vesical enlargement, and the latter may exist without the former and cause the patient so afflicted to be partially or completely dependent upon his catheter. The author believes that the intra-vesical growth alone can be removed with reasonable safety and with a fair prospect of recovery of the power of natural micturition. Urethrometers and electric endoscopes are dangerous from their liability to induce urethral fever, but digital rectal examination and the careful measuring of the length of the urethra by the simple passage of the catheter are simple and serviceable. Any undue length of the urethra would be an argument in favor of intra-vesical hypertrophy, emphasized if rectal examination shows prostatic enlargement. If the urethra is nine inches long or more, there is almost sure to be intra-vesical growth, even if not much can be felt by the rectum. Adverting to the otherwise incurable nature of retention from prostatic hypertrophy, he advises regular catheterism as long as possible. The operation for removal of the obstruction should always be extra-peritoneal, since the danger would be vastly increased if the peritonæum be involved, and the former is ample for all purposes. The bladder should always be opened upon a staff, otherwise the very large body of the prostate is liable to be incised instead of the bladder. The projecting prostate should be twisted off with forceps, in one piece if small, piecemeal if large; the torsion diminishes hæmorrhage. Hæmorrhage is usually very free, and all the more so if the knife or scissors have been used on the prostate, and the use of both these instruments is deprecated. The author has found hot water irrigation sufficient to control the bleeding. Only the intra-vesical growth should be attacked. No good would come of an attempt to remove the lateral lobes even in part. In cleaning the vesical urethral orifice of all surrounding projecting prostatic tissue much assistance is obtained from the presence of a metal sound in the urethra.

He concludes with the opinions that: (1) Supra-pubic prostatectomy should never be undertaken at the outset of catheter life unless auto-catheterism is impossible; (2) The operation should never be undertaken as long as the ordinary catheter life is a tolerable one; (3) If from any causes catheter life becomes intolerable, suprapubic prostatectomy should be resorted to. By this procedure the bladder can be thoroughly explored and every stone removed, such as in these cases might easily have escaped detection by the more usual methods of examination. The intra-vesical growth, if it is found to exist, can be fully examined and removed if the operator wishes. If removal is deemed unadvisable, or there is nothing to be removed, he can leave the patient with a suprapubic tube for permanent afterwear, with the certainty that he will have materially improved the condition of the patient; (4) Should the operator decide to remove the prostatic obstruction, there is a very good prospect, but not a certainty, of the power of natural micturition being restored to the patient.—*London Lancet*, March 11, 1893.

JAMES E. PILCHER (U. S. Army).

IV. Suprapubic Cystotomy. By F. A. SOUTHAM, F.R.C.S. (Manchester). The author has during the past seven years performed suprapubic cystotomy seventeen times for four causes—tumor, prostatic retention of urine and cystitis—as follows:

No.	Age	Condition.	Nature of Operation.	Result.	Remarks.
1	41	Tumor—papilloma.	Removal of tumor.	Recovery.	
2	58	Tumor—papilloma.	Removal of tumor.	Death.	Acute septicæmia. Death on tenth day.
3	8	Calculus.	Lithotomy.	Death.	Bladder sutured; leakage of urine; pelvic cellulitis.
4	46	Cystitis, tuberculous.	Drainage.	Death.	General tuberculosis. Death from exhaustion on second day.
5	67	Tumor—papilloma.	Removal of tumor.	Death.	Acute peritonitis. Death on third day.
6	35	Tumor—epithelioma.	Drainage.	Recovery.	Drainage through suprapubic fistula six months subsequently.
7	62	Retention of urine due to malignant prostatic disease.	Drainage.	Death.	Death from exhaustion on second day.
8	66	Retention of urine due to hypertrophy of prostate.	Prostatectomy.	Recovery.	Recovered power of voluntary micturition.
9	69	Retention of urine due to hypertrophy of prostate.	Prostatectomy.	Recovery.	Recovered power of voluntary micturition.
10	18	Calculus of large size.	Lithotomy.	Recovery.	
11	49	Calculus, encysted.	Lithotomy.	Recovery.	Prostatectomy also performed.
12	63	Calculi, three in post-prostatic pouch.	Lithotomy.	Recovery.	Prostatectomy also performed.
13	56	Tumor—papilloma.	Removal of tumor.	Recovery.	
14	52	Retention of urine due to stricture and hypertrophy of prostate.	Drainage.	Recovery.	Recovered power of voluntary micturition.
15	52	Calculus in post-prostatic pouch.	Lithotomy.	Recovery.	
16	38	Calculus in post-prostatic pouch.	Lithotomy.	Recovery.	
17	70	Retention of urine due to hypertrophy of prostate.	Drainage.	Recovery.	Recovered power of voluntary micturition.

As a result of his experience in Cases 1, 2, 5, 6 and 13, the author concludes that for all cases of removal of vesical growths occurring in males there is no doubt but that the suprapubic operation is far superior to perineal cystotomy. It also possesses great advantages as a means of exploring the bladder for diagnosis of growths. If removal is not desirable, drainage is established best by this route, as in Case 6.

From the experience of Cases 3, 10, 11, 12, 15 and 16 he concludes that the cutting operation is justified only when crushing is contraindicated by the size and hard nature of the stone, or by the fact that it is encysted or associated with considerable enlargement of the prostate gland. In this connection he remarks at length in favor of the crushing operation.

From the experience of Cases 7, 8, 9, 14 and 17 he concludes that suprapubic cystotomy is indicated in habitual retention due to enlargement of the prostate: (1) when palliative treatment—regularly drawing off the urine and washing out the bladder—has failed to give relief, and when self-catheterism is impracticable or attended by pain; and (2) when the retention is accompanied by active hæmorrhage into the interior of the bladder, which cannot be checked by ordinary means. Under these circumstances the operation enables one of the following courses to be adopted: (*a*) free drainage for a time, which is often followed by a return of the power of voluntary micturition; (*b*) permanent drainage by the establishment of a suprapubic fistula; and (*c*) removal or division of the obstructing portion of the prostate gland.

In cystitis (Case 4) the operation is not only useful as a means of effectually draining and irrigating the bladder, but it also affords access to the ulcers, which may be scraped or cauterized.

He remarks that in Cases 2, 3 and 5 the fatal result was due to septicæmia, pelvic cellulitis and peritonitis, complications now almost certainly preventable if during the operation the cellular tissue in front of the bladder is not much disturbed, and if during the after-treatment the wound is kept in an aseptic condition. He thinks the opening in the bladder should never be sutured; it adds a danger to the operation, for if the bladder begins to leak after the superficial wound has entirely or partly closed (Case 3), extravasation and pelvic cellulitis are likely to occur; if, on the other hand, the suturing is successful, the operation is deprived of one of its chief advantages—the free after-drainage—which is always beneficial.—London *Lancet*, March 18, 1893.

ABSCESSES.

I. Radical and Rapid Treatment of Cold Abscess. By Dr. Calot (Paris). The writer claims that the most voluminous and ancient cold abscesses are curable in eight days, provided that they are accessible, by means of an operative procedure in which, after entire removal of the diseased tissue, immediate union is sought for. If this be not obtained, a recurrence is nearly certain, or a fistula may persist. To succeed, the adjoined tissues must have sufficient vitality, the walls of the abscess must not only be removed, but the surrounding tissues must be excised down deep into healthy parts. All drainage must be suppressed, for the drain renders reinfection almost certain. Even when it is aseptic it will be liable to leave a fistula that will persist indefinitely. The superficial sutures must not leave a single space, and compression must be equal and energetic and methodic. Old and extensive abscesses are especially amenable to this treatment, for the writer has thus treated with success an extensive cold abscess that has been treated in vain for nearly two years by other methods, and which contained over three quarts.—*La Semaine Médicale*, No. 23, 1893.

BONES, JOINTS—ORTHOPÆDIC.

I. Tuberculous Disease of the Elbow Joint. By Dr. Kosima (Goettingen). The writer has made a study of the material which has accumulated in the Goettingen Surgical Clinic during the last fifteen years. It consists of twenty-one cases treated